

REMARKS

Claims 1-15 are pending in this application. By this Amendment, the Specification and claims 1-15 are amended. An Abstract is added.

Applicants appreciate the courtesies shown to Applicants' representative by Examiner Siconolfi in the May 14, 2003 personal interview. Applicants' separate record of the substance of the interview is incorporated into the following remarks.

Claims 1-3, 6-10 and 12-15 are rejected under 35 U.S.C. §103(a) as unpatentable over WO 99/14516 to Schmitt et al. ("Schmitt") the English equivalent of which is U.S. Patent No. 6,315,086, in view of German Patent DE 19736503 (the Weber patent). The rejection is respectfully traversed.

Applicants respectfully request that before any further consideration of the Weber patent, the Patent and Trademark Office should provide a full English language translation of this German reference. See Ex Parte Gavin, 62 USPQ2d, 1680, Bd. of Pat. App. & Inter., December 17, 2001.

Applicants assert that neither Schmitt nor Weber, whether considered alone or in combination, disclose or suggest all of the features recited in the rejected claims. For example, the combination of the applied references do not disclose or suggest an actuator, comprising a gear reduction mechanism connecting the rotor of the motor to at least one of the rotatable screw and the nut, the gear reduction mechanism comprising at least a concentric gear ring with radially inwardly directed teeth, an eccentrically positioned gear wheel having radially outward directed teeth wherein the outer diameter of the gear wheel is smaller than the inner diameter of the gear ring, such that the teeth of the gear wheel and gear ring engage each other along a part of their circumferences, and at an opposite part of their circumferences are out of engagement, the eccentric gear wheel being rotatably accommodated on an eccentrically shaped hub which is connected to the rotor of the motor,

wherein the gear ring is integrated with the screw of the screw mechanism, the screw being rotatably supported with relation to the housing.

The Office Action alleges that Schmitt discloses a screw mechanism, a motor including a rotor and a stator, and a gear reduction mechanism comprising a planetary gear set (35, 36, 37 and 38).

Applicants assert that the gear reduction mechanism of Schmitt does not disclose or suggest an eccentrically positioned gear wheel having radially outward directed teeth, as admitted in the Office Action. In addition to the admitted deficiency, Applicants assert that Schmitt also does not disclose or suggest the additional features of the gear wheel, i.e., that the outer diameter of the gear wheel is smaller than the inner diameter of the gear ring, such that the teeth of gear wheel and the gear ring engage each other along a part of their circumferences, and at an opposite part of their circumferences are out of engagement. Furthermore, the eccentric gear wheel recited in the rejected claims is rotatably accommodated on an eccentrically shaped hub, which is connected to the rotor of the motor.

Additionally, Schmitt does not disclose or suggest a gear ring that is integrated with the threaded rollers (12-15) of the screw mechanism, nor are the threaded rollers (12-15) rotatably supported with relation to the housing.

Rather, in Schmitt, the planetary gears (35, 36, 37 and 38) are connected to the pinion wheel carrier (34) by studs projecting from the surface of the planetary gears (see Fig. 2 of Schmitt). Additionally, none of the planetary gears or the pinion wheel carrier are integrated with the threaded rollers. Accordingly, Schmitt does not disclose or suggest the features as alleged in the Office Action.

To overcome the admitted deficiency that Schmitt does not disclose the use an eccentric ring for a reduction mechanism, the Office Action combines Weber and alleges that it would have been obvious to one of ordinary skill in the art at the time the invention was

made to use the eccentric gear wheel of Weber for the reduction mechanism as taught by Schmitt.

As understood from the German language reference of Weber, Weber fails to compensate for the deficiencies of Schmitt as stated above.

The Office Action alleges that in Fig. 3 of Weber discloses a screw (14) and a nut (15) and a motor attached to the shaft (1), a gear ring (10) with a gear wheel (7) acting as a gear reduction mechanism. However, the Office Action does not identify which of the gear ring (10) or the gear wheel (7) is the eccentric gear. Furthermore, Applicants assert Fig. 2 does not show a eccentric gear wheel.

Additionally, even if the Figure were interpreted to disclose an eccentric gear wheel, Weber does not disclose an eccentric gear wheel being rotatably accommodated on an eccentric hub which is connected to the rotor of a motor. Furthermore, the hollow wheel (10), or gear ring of Weber is not integrated with the screw (14). Rather, the hollow wheel (10) of Weber is integrated with the nut (15) (see fig. 1 of Weber). Accordingly, neither Schmitt or Weber, whether considered alone or in combination, disclose or suggest all of the features recited in the rejected claims.

Claims 4, 5 and 11 are rejected under 35 U.S.C. §103(a) as unpatentable over Schmitt in view of U.S. Patent No. 5,829,557 to Halasy-Wimmer et al. ("Halasy-Wimmer"). The rejection is respectfully traversed.

Applicants assert that claims 4, 5 and 11 are allowable for at least their dependency on claim 1 as discussed above, as well as for the additional features recited therein.

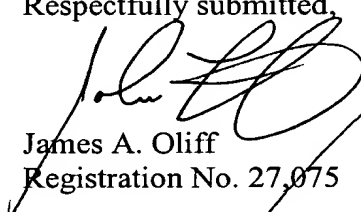
Furthermore, although Halasy-Wimmer discloses a spiral spring (23), Halasy-Wimmer does not disclose or suggest a positive back-drive mechanism connected to a flange and the housing as recited in claims 4 and 5. Thus, neither Schmitt nor Halasy-Wimmer, whether considered alone or in combination, disclose or suggest a gear

reduction mechanism and a positive back-drive mechanism contained in a gear reduction module. Accordingly, Applicants respectfully request rejection of claims 4, 5 and 11 under 35 U.S.C. §103(a) be withdrawn.

In view of the foregoing amendments and remarks, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration and prompt allowance of claims 1-15 are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,


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